

INTERNATIONAL SEARCH REPORT

PCT/GB2004/002668

| A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H02K5/132 H02K9/19 F04D13/10 | | |
|---|---|--|
| According to International Patent Classification (IPC) or to both national classification and IPC | | |
| B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 H02K F04D | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched | | |
| Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| Y | US 6 388 353 B1 (LIU JOSEPH C ET AL) 14 May 2002 (2002-05-14) cited in the application column 3, line 60 - column 4, line 44 | 1-5 |
| Y | EP 1 102 383 A (NISSAN MOTOR) 23 May 2001 (2001-05-23) column 3, line 1 - line 45 | 1,2,4,5 |
| Y | DE 28 26 607 A (BBC BROWN BOVERI & CIE) 29 November 1979 (1979-11-29) page 5, line 17 - page 6, line 2 | 3 |
| A | EP 0 342 554 A (MAGNET MOTOR GMBH) 23 November 1989 (1989-11-23) column 3, line 52 - column 4, line 9 | 1-5 |
| <input type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex. | | |
| * Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family | | |
| Date of the actual completion of the international search 4 October 2004 | | Date of mailing of the international search report 29. 12. 04 |
| Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 | | Authorized officer Frapporti, M |

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5

A downhole electric motor having a permanent magnet rotor and a stator with windings in closed slots. The windings are cooled in the slots.

2. claims: 6-12,13-20

A downhole electric motor having a stator being made up of first and second concentric parts which together define the slots in the stator so as to permit the phase windings to be fitted to the first part prior to fitting of the second part to enclose the phase windings within the slots.

3. claims: 21-23

A downhole electric motor having two multiple-phase sections being supplied with electrical power from the surface by separate supply leads.

4. claims: 24,25

A method of constructing the phase coils of a downhole electric motor.

5. claim: 26

A permanent magnet motor having permanent magnets provided with an anti-corrosion coating.

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| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|----|---------------------|---|--|
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| EP 1102383 | A | 23-05-2001 | JP 2001145302 A EP 1102383 A2 US 6515384 B1 | 25-05-2001 23-05-2001 04-02-2003 |
| DE 2826607 | A | 29-11-1979 | CH 627885 A5 DE 2826607 A1 DE 7818185 U1 | 29-01-1982 29-11-1979 21-02-1980 |
| EP 0342554 | A | 23-11-1989 | DE 3816652 A1 AT 147904 T DE 58909764 D1 EP 0342554 A1 ZA 8903510 A | 30-11-1989 15-02-1997 27-02-1997 23-11-1989 28-02-1990 |